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ABSTRACT

At the request of the Multiple Curriculum Committee of the Louisiana State Board of Elementary and Secondary Education, the current status of high school graduation requirements and related curricula offerings nationwide was studied. Reviews of current educational literature and working papers of the committee and telephone interviews with State Department of Education personnel were conducted. The resulting data were aggregated in response to three research questions, which addressed the following issues: (1) the nature and extent of high school graduation requirements currently in place across the country; (2) the characteristics of the various curricula currently being offered in the nation's schools; and (3) secondary education curriculum models emerging for consideration by educational policymakers in Louisiana. Specific areas of investigation included graduation testing, credit and component requirements, content area credit requirements, core curricula, multiple curricula, diploma options, and honors curricula. (TJH)

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A NATIONAL STUDY OF HIGH SCHOOL GRADUATION REQUIREMENTS
AND MULTIPLE CURRICULA OFFERINGS
IN THE SECONDARY SCHOOLS ACROSS THE UNITED STATES

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A NATIONAL STUDY OF HIGH SCHOOL GRADUATION REQUIREMENTS AND MULTIPLE CURRICULA OFFERINGS IN THE SECONDARY SCHOOLS ACROSS THE UNITED STATES

INTRODUCTION

The current educational reform movement has as its primary focus the infusion of excellence into all levels of the educational system, from kindergarten through high school and beyond. For the most part, this quest has been translated into a demand for higher academic standards for all. During the Sputnik era when the United States focused on the need for excellence in education, the emphasis was on urging the brightest and the best students to meet the challenge posed by Soviet technology. In contrast, however, today's reform movement is urging that all students be held to higher standards of academic performance. While there is considerable evidence to indicate that increased expectations are related to improved performance, this reform effort has generally devoted relatively little attention as to how to guarantee that all students will be afforded an equal opportunity to attain the higher standards expected of them. Simply imposing higher standards does not ensure that such performance levels will be reached. While standards are a necessary factor, they are not the sole contributory factor in bringing about improved performance.

The Reform Movement in Louisiana

In response to the educational reform movement at the national level, many states enacted legislation and/or developed policies designed to foster academic excellence. In many cases these efforts focused on the establishment of more stringent high school graduation requirements and the development of differentiated curricula to better meet the needs of all secondary school students.

The reform movement in Louisiana manifested itself through the establishment of a single, undifferentiated curriculum in which 22.5 credits were initially required for high school graduation. As prescribed by the Louisiana State Board of Elementary and Secondary Education (BESE), this policy became effective for incoming freshmen in 1983-84. An additional one-half credit was added to the requirement, effective the following year, so that the number of credits currently prescribed for high school graduation is 23. Of that number, 9.5 credits reflect specific core courses that must be completed by all potential graduates. An additional six credits must be taken from among a group of specified courses in each content area, with the remaining 7.5 credits being electives.

Even before the full 23-credit requirement became effective, opposition had arisen concerning the specific courses prescribed within those requirements, particularly in mathematics, where both Algebra I, and a choice of either Algebra II or geometry were mandated for all. Critics claimed that such courses were designed for only the college-bound, while proponents welcomed the ushering-in of higher standards for all students. At the end of that initial year, when approximately one-fourth of the incoming freshmen were reported to have failed Algebra I, pressure mounted to have the new graduation requirements rescinded. In response to this pressure, the Legislature, during the 1985 Session, gave consideration to

such action, but eventually opted instead to request that BESE appoint a committee to study the need for, and potential effects of, a multiple curriculum system in Louisiana's public schools. In its wording of HCR 110, the Legislature emphasized that the focus of the BESE study was to be on exploring ways to better meet the needs of all students, but particularly those of the noncollege-bound. The implication inherent in the resolution was that the current high school graduation requirements were designed for college-bound students, and that the needs of the noncollege-bound could perhaps be more adequately met through the offering of differentiated curricula, rather than a single curriculum for all. Thus the newly created Multiple Curriculum Committee was charged with determining whether there was a need for a multiple curriculum system in Louisiana, and then, with investigating the potential effects of implementing such a system in the state.

Purpose of the Study

The study presented in this paper was conducted at the request of the Multiple Curriculum Committee of the Louisiana State Board of Elementary and Secondary Education (BESE) in response to the aforementioned House Concurrent Resolution No. 110. Its specific purpose was to examine the current status of high school graduation requirements and related multiple curricula offerings in the secondary schools across the country. Such information was requested to serve as the basis for subsequent decision-making relative to statewide educational policies.

REVIEW OF CURRENT EDUCATIONAL LITERATURE

In order to accurately assess the current status of high school graduation requirements and related multiple curricula offerings across the United States, the broader context within which secondary schools exist and operate was closely examined. The specific goals set forth for public education today were used as the yardstick against which high school standards were measured. A brief review of the evolution of those goals is provided here as a backdrop for the interpretation of the results gleaned through the conduct of this study.

Historical Perspective

Secondary schools in the United States initially arose to prepare the academically elite for college, many specifically for the ministry. The curriculum was demanding and highly specialized; and, as a result, few attended. Students generally moved on only after demonstrating mastery of the required work.

In the early 1900's, mandatory attendance laws and the emerging belief that schools should serve all students, began to swell public school enrollments. In an effort to impose organization on an expanding educational system, students were grouped by age and moved through in lock-step fashion, one result of which was social promotion.

Prevailing social and political trends since that time have given birth to numerous reform movements in education. During educationally conservative times the emphasis has been on academic achievement, curriculum, and discipline. The focus during more liberal times was on equity for the disadvantaged and the need to expand the role of the school (Toch, 1984).

During the late 1950's, and throughout most of the 1960's, the theme of educational reform was one of rising to meet the challenge posed by Soviet technology. Our best and brightest were urged to direct their efforts toward mathematics, science, and foreign languages, and incentives specifically designed to lure teachers into those areas were in abundance. The late 1960's and most of the 1970's were more liberal times; the result was a shift in the focus of educational reform to addressing the plight of the disadvantaged. In response, a multitude of federal programs emerged to provide services to the economically deprived (Title I, Head Start, etc.) and the handicapped (through special education programs). Additional efforts were directed toward the enhancement of vocational programs. In general, earlier and broader-focused schooling, along with an increased emphasis on relevance, were the pervasive themes of this turbulent period.

The educational reform movement of today represents a shift back to that observed during the more conservative post-Sputnik era. Again the demand is that schools hold all students to higher standards, and that social promotion, initially implemented for reasons of expediency, come to an end. According to Michael Kirst of Stanford University, during the 1980's the Japanese Toyota replaced Sputnik as the symbol of America's inability to compete. However, unlike the narrow focus of the 1950's and 1960's, today's reformers are urging that all be held to higher standards of performance. The primary reason given for this extensive accountability is that such standards are needed to ensure that all students are adequately prepared to meet the demands of an increasingly complex world.

This current reform movement has become synonymous with excellence--or at least the expectation of excellence--for all. While there is much evidence that increased expectations can lead to improved student performance, there are also considerable data indicating that raising standards can result in further academic stratification and cause more school failures (McDill, Natriello, and Pallas, 1985).

This potentially negative impact of increased standards is reiterated in a recent report by the Association for Supervision and Curriculum Development, entitled With Consequences for All (1985), which states that the nationwide push toward raising high school standards could make a "bad situation worse" for students at the bottom of the class. The report questions whether real improvement can result from the "flood of mandates" handed down from state legislatures. Electives are being squeezed out by the academic subjects, with the result being that few students will have the opportunity to experience specialized courses outside of the core subjects. The report goes on to say that teachers facing more low-achieving students in academic classes will either have to simplify such courses, or (if they elect to maintain standards) hand out discouraging grades to increasing numbers of students. If the courses are diluted, the top achievers will go unchallenged. On the other hand, if standards are maintained, the low

achievers will be overwhelmed and frustrated. According to the report, the result may be a "shriveling up" of the chances for success among significant numbers of minority, foreign-born, disadvantaged, and handicapped students.

While most educators agree that increased expectations can result in improved performance, they are also quick to point out that such performance cannot be realized unless all are assured of having an equal opportunity to meet the new standards. However, as of late, little attention has been focused on how to provide such a guarantee: that all students will have a fair chance to attain the higher standards expected of them. Simply imposing higher standards does not ensure that such performance levels will be reached. According to John Goodlad (1985), assuming this is comparable to "moving the high jump bar up from four to six feet without giving any additional coaching to the youth who were not clearing the bar when it was set at four feet," (p. 270). In the absence of such equal opportunity guarantees, increased expectations will lead to increased frustration, and the gap between the educational "haves" and the "have-nots" will widen. Dropout rates will increase, with the result being a growing segment of the citizenry lacking in the necessary training to function in an increasingly complex world.

According to an article in Phi Delta Kappan (Toch, 1984), one reason for the lack of attention to guaranteeing equal opportunity may be that most of the current reformers are lawmakers, not educators. The focus has thus been on rewriting regulations such as those governing the length of the school day, the length of the school year, the cutoff scores on competency tests, and high school graduation requirements. According to the article the real emphasis during this period should have been on addressing the much more complex issues of determining the actual content of courses in the newly prescribed core curriculum, and, perhaps even more importantly, specifying how that content should be taught. In a recent NASSP Bulletin (March 1986), Harkins concurs with this point of view and calls upon schools to do more than just implement new course requirements. He feels that the emphasis should actually be on the translation of the new requirements into new and different ways to challenge all students, to interest them, to truly tap their potential, and, as a result, to prevent them from dropping out. According to Harkins, higher standards should not only mean more courses, but, perhaps more importantly, better courses that concurrently challenge students and offer them a reasonable chance of success.

In an effort to meet the challenge posed by this "equal opportunity" issue, many states have taken steps to replace such liberal practices as social promotion with promotion based on academic progress. Statewide testing programs tied to promotion/retention decisions have been implemented in increasing numbers in recent years. When conducted in tandem with remedial programs for those who need additional time and assistance to master the prescribed higher standards, such efforts have yielded promising results.

We, as Americans, have repeatedly said, through the annual Gallup polls, that we want our secondary schools to be comprehensive in function, and to focus on the production of (1) enlightened citizens, (2) productive workers, and (3) lifelong learners. If our goal is to remain one of universal secondary education, then, according to John Goodlad (1985), the

high school should be viewed as a terminal institution, and as such it should be regarded as the final chance to give everyone the general education that our goals imply we want them to have. In order to maximize the potential impact of that final chance, we must strive to guarantee that all of our students will be afforded an equal opportunity to master the higher standards we expect of them. Simply increasing requirements without providing the adequate preparatory and support mechanisms will, in most cases, have the reverse effect, and could seriously jeopardize the attainment of the very goals toward which such efforts are directed.

The question now facing educational reformers in Louisiana, as well as in many other states, is how to guarantee that all students will be afforded an equal opportunity to attain the higher standards we expect them to meet. Some steps have already been taken, but were they the right steps, have they had their intended effect? The very passage of Louisiana's HCR 110 implies that such equal opportunity guarantees are not presently available to all of the state's high school students. Whether the implementation of multiple curricula in the state's schools will satisfactorily address this problem is a question that educational policy makers must now carefully consider. It is hoped that the information presented in this report will facilitate the resolution of that most important dilemma.

METHODS

The study employed extensive reviews of both current educational literature and the working papers of the Multiple Curriculum Committee to address the charge specified in the legislative resolution. Detailed, state-specific information relative to high school graduation requirements and related multiple curricula issues was provided through indepth, scheduled telephone interviews with Department of Education personnel in each of the 50 states and the District of Columbia. Differentiated interview protocols were developed in accordance with the level from which high school graduation requirements were set in each state (state, local, or a combination of the two). The resulting data were then aggregated in response to the three major research questions addressed in the study.

Basic Definitions

In order to ensure consistency in the interpretation of data gathered through the conduct of this study, it was critical that several key concepts be defined. As used in this study, a "core curriculum" is a group of common courses and/or defined course content required of all students as a prerequisite to high school graduation. Typically, core curricula consist of the minimum graduation requirements in a particular state in the form of prescribed courses and/or course content.

"Multiple curricula," as applied to this study, was taken to mean different courses of study, often connected by some common courses, all leading to the completion of high school. Though many of the prescribed multiple curricula within a given curriculum framework encompass a common core, others are totally unique with no common courses or content among the complement offered. Examples of typical multiple curricula offered across the United States include general studies, college preparatory, vocational, and honors curricula.

PRESENTATION OF THE DATA AND DISCUSSION OF THE RESULTS

Introduction

The data presented in this section were gathered primarily through telephone interviews with Department of Education personnel in each of the 50 states and the District of Columbia. This information is supplemented by additional printed material forwarded by those individuals, along with relevant findings from current educational literature. The results are organized with respect to the three major research questions addressed in the study.

Research Question 1: What is the nature and extent of the high school graduation requirements currently in place across the United States?

Level From Which Requirements Are Set

Information gathered through the nationwide telephone surveys relative to whether high school graduation requirements are prescribed from the state level, local level, or both, is shown in Table 1. As illustrated, in the 50 states and the District of Columbia, two states (4%) prescribe all high school graduation requirements solely from the state level, whereas four (8%) set all such requirements solely from the local level. The District of Columbia is included in the "local only" designation although its single education unit actually serves as both the state and local standard-setting authority. In the majority of states (45, or 88 percent) both state and local responsibility is assumed for this standard-setting activity. In these 45 states, the locally prescribed requirements generally encompass and extend beyond these specified at the state level.

Characteristics of Graduation Requirements

The specific characteristics of high school graduation requirements in states with both state and local standard-setting responsibility are shown in Table 2. Among the 45 states with such combined authority, the State Board of Education is the agency most often responsible for setting standards prescribed from the state level (in 27 states or 60 percent). Both the State Legislature and the State Board are responsible for setting state level graduation requirements in seven states (16%), while sole responsibility rests with State Legislatures in six states (13%).

Not illustrated in Table 2 are the graduation requirement characteristics of the two states with exclusive state authority and the four states with complete local autonomy. In the former category, the State Board of Education is responsible for setting those state standards in both states. The issue does not apply in the four states with total local autonomy.

Table 1. Statewide High School Graduation Requirements:
Level at Which Set
N=51^a

<u>Level</u>	<u>Number of States</u>	<u>Percentage of States</u>
I. State level only	2	4%
II. Local level only ^b	4	8%
III. Both state and local levels	45	88%
Total	51	100%

^aIncludes the District of Columbia.

^bIn the District of Columbia, a single education agency actually serves as both the state and local education department.

In the second section of Table 2 is an approximation of the extent to which the local school systems in these 45 states with shared state and local authority prescribe their own graduation standards. As illustrated, not all local systems in such states choose to exercise that authority. In almost half of these states (22, or 49 percent) such local graduation requirements are prescribed by all or almost all of the local systems. In seven (16%) of the 45 states, approximately half of the local systems set standards. In 13 percent (six states), fewer than half of the systems set local requirements, while very few systems do so in five states (11%). Among the four states with complete local autonomy (not illustrated), all or almost all of the systems in all 4 states have locally prescribed requirements.

In all 45 states with both state and local standard-setting authority, local graduation requirements (when prescribed) are always set by local school boards. This is also the case in the four states with complete local autonomy.

Graduation Testing

Information concerning the extent and nature of exit testing as a requirement for high school graduation is presented in Table 3. As illustrated, among the 45 states with both state and local standard-setting

Table 2. Characteristics of High School Graduation Requirements
Set From Both State and Local Levels
N=45

	Number of States	Percentage of States
I. State agency that sets statewide graduation requirements:		
A. State Legislature	6	13%
B. State Board of Education	27	60%
C. State Department of Education	0	0%
D. State Legislature and State Board	7	16%
E. State Legislature and State Department	1	2%
F. State Board and State Department	2	4%
G. State legislature, Board, and Department	2	4%
II. Approximate number of local systems within these states with their own prescribed high school graduation requirements:		
A. Very few	5	11%
B. Less than half	6	13%
C. Approximately half	7	16%
D. More than half	4	9%
E. All or almost all	22	49%
F. Don't know	1	2%
III. Nature of local graduation requirements:		
A. Set by local school board	45	100%
B. Generally extend beyond state prescribed requirements	45	100%

responsibility, 16 (36%) do have, or soon will have, such tests in place. Of the 16 states with required graduation tests, 14 (88%) prescribe such tests from the state level; the other two (12%) mandate these tests locally.

The content areas most often addressed by these tests are English/reading (by 94 percent of the states administering such tests), mathematics (by 88 percent), social studies (by 38 percent), writing (by 31 percent), and science (by 25 percent). The exit tests are most frequently first administered in the 10th grade (in six, or 38 percent of the states with exit tests). In 25 percent (four states), the test is first given in the ninth grade; the 11th grade is the choice in 19 percent (three states). In one state, New York, various test components are given at different grade

Table 3. High School Graduation Testing Among States With Both
State and Locally Prescribed Graduation Requirements
N=45

	Number of States	Percentage of States
I. Relative frequency of occurrence (N=45):		
A. Prescribed from state level	14	32%
B. Prescribed from local level	2	4%
C. No graduation test requirement	29	64%
II. Content areas generally addressed (N=16):		
A. English/reading	15	94%
B. Mathematics	14	88%
C. Science	4	25%
D. Social studies	6	38%
E. Writing	5	31%
F. Computer literacy	1	6%
G. Vocational education	1	6%
III. Grade level at which exit test first given (N=16):		
A. 9th grade	4	25%
B. 10th grade	6	38%
C. 11th grade	3	19%
D. 12th grade	1	6%
E. Components given at different grade levels	1	6%
F. Undetermined; still being developed	1	6%
IV. Availability of remediation opportunities (N=16):		
A. Provided	15	94%
B. Not provided	1	6%
V. Availability of retake opportunities (N=16):		
A. Provided	16	100%
B. Not provided	0	0%

levels. Remediation is available in 15 of the 16 states (94%) with graduation tests; retake opportunities are provided in all 16.

The two states with complete state level responsibility for setting graduation requirements both administer exit tests addressing English/reading, mathematics, science, and social studies. One state includes material in the areas of health and problem solving. The test is first given in the ninth grade in one state, and at the 10th grade level in the other. Remediation and retake opportunities are provided in both states. Among the four states with local autonomy, exit tests are generally given at the discretion of local districts.

Component Graduation Requirements

Specific aspects of the high school graduation requirements mandated in states with mixed state and local responsibility for setting such standards are shown in Tables 4-6. Table 4 presents the overall mandates, while Tables 5 and 6 explicate the total and content area credit requirements, respectively.

As illustrated in Table 4, all 45 states prescribe the total number of credits required for high school graduation; 43 of the 45 (96%) also specify the number of credits required in each content area such as four credits in English, three in mathematics, etc. In 60 percent (27 states), course options (from among a specified list of courses) and/or content (such as one credit in a physical science or one in a life science) from which credits in one or more areas must be selected are prescribed. Specific courses like English I or American history that must be taken by all students are delineated in 32 states (71%).

Table 4. Mandated Components of High School Graduation Requirements
Among States With Both State and Locally Prescribed Standards
N=45

	Number of States	Percentage of States
I. Total number of credits required for graduation	45	100%
II. Credits required by content area	43	96%
III. Course options from which required credits must be selected (in one or more content areas)	27	60%
IV. Specific core courses that must be taken by all students (in one or more content areas)	32	71%

In the two states with complete state level standard-setting authority, as well as in the four states with local autonomy, both the total credits required for graduation and number required in each content area are mandated. However, whereas the course options and specific courses are prescribed in both states with state level authority, such is the case in only one of the four local autonomy states (25 percent for each).

Overall Credit Requirements

The range of total credits required for high school graduation in states with shared state/local responsibility is illustrated in Table 5. The range of credits required for graduation is from 13 (with local additions) to 24 credits. The most frequently mandated minimum is 20 credits (by 29 percent of the 45 states). Second in relative frequency is 21 credits required by 16 percent. It should be noted that in many instances the number of required credits reflects only the basic credit minimum; many local systems add their own requirements to this minimum. This is particularly true of the lower range of required credit totals. With the wide variations in such local requirements that are generally added to this minimum, it would appear that the reported mean of 19.4 credits across these 45 states is probably lower than what would be observed if data concerning the supplemental local credit totals could be obtained.

Table 5. Overall Credit Requirements Among States With Both State and Locally Prescribed Graduation Requirements
N=45

	Number of States	Percentage of States
I. Total credits required for graduation		
A. 13 credits (plus additional local requirements)	2	4%
B. 14.5 credits	1	2%
C. 16 credits	5	11%
D. 17 credits	1	2%
E. 18 credits	4	9%
F. 18.5 credits	1	2%
G. 19 credits	2	4%
H. 19.75 credits	1	2%
I. 20 credits	13	29%
J. 21 credits	7	16%
K. 22 credits	4	9%
L. 23 credits	2	4%
M. 24 credits	2	4%

Mean

II. Mean overall graduation credit requirement = 19.4 credits

Table 6. Content Area Credit Requirements Among States With Both State and Locally Prescribed Graduation Standards
N=45

Number & Percentage of States Requiring the Indicated Number of Credits in Each Content Area

Content Area	5 credits		4 credits		3 credits		3/2 ^a credits		2.5 credits		2 credits		1.5 credits		1.25 credits		1 credit		1/0 ^a credits		.5 credits		Exposure (0 credit)		Not required		Local option		Mean No. of Credits*
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
I. English	1	2%	33	73%	9	20%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4%	3.8
II. Math	-	-	-	-	8	18%	2	4%	-	-	31	69%	-	-	-	-	2	4%	-	-	-	-	-	-	-	-	2	4%	2.1
III. Science	-	-	-	-	3	6%	2	4%	-	-	31	69%	1	2%	-	-	4	9%	-	-	-	-	-	-	-	-	2	4%	1.8
IV. Social Studies	-	-	1	2%	21	47%	-	-	5	11%	14	31%	1	2%	-	-	1	2%	-	-	-	-	-	-	-	-	2	4%	2.6
V. Health & PE	-	-	1	2%	-	-	-	-	1	2%	9	20%	7	16%	1	2%	17	38%	-	-	2	4%	-	-	3	7%	4	9%	1.4
VI. Computer Literacy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2%	-	-	5	11%	10	22%	26	58%	3	7%	0.6	
VII. Fine/Applied Arts	-	-	-	-	-	-	-	-	-	-	2	4%	1	2%	-	-	6	13%	3	7%	4	9%	-	-	26	58%	3	7%	1.0
VIII. Foreign Language	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9%	-	-	-	-	38	84%	3	7%	1.0

^a Indicates that a choice is offered in terms of credits required among two or more content areas (For example, 5 total credits may be required in math and science combined, such that 2 credits are specified in either one, with 3 in the other.)
^b States in which local option was specified were excluded from this mean computation.

In the two states with complete state responsibility for graduation standard-setting, the minimum overall credit requirement is 20 units. Among the four states with local control, one reported an average of 20 required units, one requires 20.5, and the third indicated a 21.1 credit average. In the fourth state, no statewide average was available.

Content Area Credit Requirements

The content area credit requirements among the 45 states with shared state and local standard-setting authority are illustrated in Table 6. In English, four units are most frequently prescribed (by 73 percent of the states), followed by three units required by 20 percent. Two units are most often specified in mathematics (by 69 percent), while 18 percent require three units. In science, 31 states (69%) prescribe two credits; nine percent require one credit. Three credits are most often required in social studies (by 47 percent of the 45 states), with 31 percent specifying two credits. One credit is most often specified in health and physical education (by 38 percent); nine states (20%) require two credits in this area. Computer literacy is prescribed infrequently, as evidenced by the 36 states (80%) that have no credit requirement in this area. However, 10 of these states (22 percent of the 45), do require exposure to computers within the context of various other content areas. One credit in fine/applied arts is required by six states (13%), but 58 percent have no credit requirement in this area. Foreign language is prescribed as a course option for one possible credit in four states (9%), but 84 percent have no specified foreign language requirement.

The mean number of credits prescribed in each content area is shown in the last column of Table 6. As illustrated, the greatest number of prescribed credits is in English (3.8). Social studies is next with an average of 2.6 credits prescribed. Mathematics, with a 2.1 credit average follows, with science next at 1.8 credits. An average of 1.4 credits is required in health and physical education. Among the states that have credit requirements in fine/applied arts or foreign language, an average of 1.0 credit is prescribed. In computer literacy, a mean of 0.6 units are specified among the states that have credit requirements in this area.

A state-by-state breakdown of the prescribed high school graduation requirements in each content area is presented in Appendix A. Included are those states in which such requirements are specified strictly at the state level (2 states), as well as those with complete local autonomy (4 states).

Summary

In the majority of states (88%), high school graduation requirements are prescribed from both the state and local levels. Two states exercise total state authority, and four have complete local responsibility. The State Board of Education is generally the agency responsible for setting state standards. In 22 of those 45 states, all or almost all of the local systems prescribe their own supplementary graduation requirements. In all 45 states the local standards are set by the local school board and generally extend beyond the state prescribed requirements.

Graduation exit tests are mandated by 16 of the 45 states (36%) with state and local standard-setting responsibility. Fourteen prescribe these tests from the state level; the other two do so from the local level. Such tests are also mandated by the two states with complete state level standard-setting authority; such tests are not widely prescribed in the four states with total local responsibility.

The content areas most frequently addressed in the exit tests are English/reading, mathematics, social studies, writing, and science, in that order. Such tests are most often first administered in the 10th grade. Retake opportunities are always provided, while remediation is generally available.

Overall graduation credit requirements are prescribed in all 45 states with combined standard-setting authority, with 43 of those specifying such requirements by content area as well. The total credits required for graduation ranged from 13 to 24, with 20 credits the number most frequently prescribed. The credit mean among these 45 states was 19.4, but, in a number of instances, no figures were available concerning additional locally prescribed requirements. By content area the mean credits specified were 3.8 in English, 2.6 in social studies, 2.1 in mathematics, 1.8 in science, and 1.4 in health and physical education. Very few states require credits in fine/applied arts, computer literacy, and/or foreign language.

Research Question 2: What are the characteristics of the various curricula currently being offered in the nation's schools?

Core Curricula

As part of the nationwide survey, representatives from each state and the District of Columbia were asked to provide information relative to the extent to which core curricula in the form of specific courses, course options, and/or content were required of all high school students in their respective states/districts. Responses to these inquiries are shown in Section I of Table 7. As illustrated, among the 45 states with combined state and local standard-setting authority, 41 (91%) prescribe specific core curricula within the total framework of high school graduation requirements. Twelve of those 41 states require specific courses/options/content in four or more areas; the other 29 have such requirements in fewer than four areas.

Table 7. Core and Multiple Curricula Availability Among States
With High School Graduation Requirements Prescribed
From Both the State and Local Levels
N=45

I. Extent to which core curricular are offered (N=45):		
A. In four or more areas (comprehensive)	12	27%
B. In fewer than four areas (minimal)	29	64%
C. Local option; cannot generalize across state	4	9%
II. Extent to which multiple curricula are offered (N=32):		
A. Defined multiple curricula	15	47%
B. Unofficial multiple curricula	17	53%
III. Placement into multiple curricula upon entry into high school (N=15):		
A. Required	10	67%
B. Not required	1	7%
C. Not specified	4	26%
IV. Level from which placement into multiple curricula is required (N=10):		
A. State level	3	30%
B. Local level	7	70%
V. Students have relative freedom to move among required curricula (N=10):	10	100%
VI. Extent of movement among required curricula (N=10):		
A. Seldom	1	10%
B. Fairly often	4	40%
C. Very often	1	10%
D. Don't know	3	30%
E. Seldom upward; fairly often downward	1	10%
VII. Criteria used to determine student placement into required multiple curricula (N=10):		
A. Elementary/middle school GPA	4	40%
B. Standardized test results	3	30%
C. Proficiency/competency test results	2	20%
D. Completion of prescribed elementary/middle school courses	2	20%
E. Student interest/aspirations	10	100%
F. Teacher recommendations	4	40%
G. Locally set criteria	2	20%
H. Parental approval	2	20%
I. Counselor consultation	1	10%

In the remaining four states considerable variation exists such that statewide generalizations are not possible. Both states with state level standard-setting authority offer core curricula, but no generalizations are possible in the three states with total local control. In the District of Columbia, however, a core is prescribed.

Multiple Curricula

Information concerning the relative frequency with which multiple curricula are offered in addition to, or in place of, a specific core is shown in Section II of Table 7. Among the 45 states with both state and local authority relative to high school graduation requirements, 32 (71%) offer multiple curricula. Of those 32, 15 (47%) generally delineate such curricula in specific terms, often within publications listing the high school graduation requirements. The other 17 (53%) have unofficial definitions of these curricula in that such curricula are generally not printed for distribution. In 10 of those 15 states (67%) with defined or delineated curricula, students are required to select one of the specified curricula upon entry into high school. In one state (7%) no such selection is mandated; no data were available for the other four states with defined multiple curricula.

In the 10 states where curricula placement is mandated, the requirement is specified from the state level in three states (30%), and from the local level in the other seven (70%). In all 10 of these states students are relatively free to move from one curriculum to another as is shown in Section V of Table 7. Such movement occurs fairly often in four of the 10 states. It was pointed out by a number of the interviewees, however, that as students progressed through high school it becomes increasingly difficult to move into more stringent curricula, whereas movement to less stringent curricula remains relatively easy.

The criteria most often used as bases for placing students into specified curricula are listed in Section VII of Table 7. All of the 10 states that mandate such placement consider student interests and aspirations as a major factor. Grade point averages and teacher recommendations are the next most frequently considered factors (by 40 percent in each case).

Multiple curricula are offered in both states with strictly state level authority for setting high school graduation requirements. In one state, students are required to select a curriculum upon entering high school, but the criteria for curricula placement are locally determined. In the other state, such curricula are unofficially defined and typically only recommended to students in accordance with expressed career interests.

In the three states (and the District of Columbia) where local autonomy is exercised in the standard-setting process, generalizations about multiple curricula are difficult to reach because of the wide variations observed across the myriad of local school systems. However, in three of these states some types of multiple curricula are offered, but they are generally unofficially defined, and student placement into one or another is usually recommended rather than mandated.

Core Curricula Offerings

The nature of the core curricula offerings among all states that have core requirements is presented in Tables 8 and 9. Among the 50 states and the District of Columbia, 44 (86%) specify a core of courses or content as a requirement for high school graduation. A breakdown of the specifics of those core requirements is presented in Table 8. The table is divided by arbitrarily defined categories indicating the extent of the specified core: a comprehensive core is defined as one that delineates specifications in terms of required courses, course options, and/or content in four or more subject matter areas, whereas a minimal core is one that prescribes requirements in three or fewer areas. As illustrated in Table 8, 11 states have comprehensive cores, whereas the other 33 have minimal core requirements.

Among the 13 states with comprehensive core curricula, six (46%) specify the core requirements through a combination of three approaches: content, specific courses, and course options. The most frequent method of specifying the core requirements among the 31 states with less extensive cores is through a combination of content and specific courses (by 32 percent).

A content area breakdown of the core curricula specifications among the 44 states with such curricula is presented in Table 9. As illustrated, the prevalent trend in most areas (except for social studies and health/physical education) is to specify within the core only the number of credits that must be taken in each content area. However, in both social studies (by 77 percent of the states) and health/physical education (by 59 percent), specific courses/course options are most frequently defined.

Core by Multiple Curricula Availability

The extent to which both core and additional multiple curricula are offered in the 50 states and the District of Columbia is shown in Table 10. The extent of the core curricula specifications are again divided into the previously defined categories of minimal (specific requirements in fewer than four content areas), comprehensive (prescribed requirements in four or more areas), and the combined category of no specified core/local option. The multiple curricula offerings are categorized in terms of the degree of definition (defined versus unofficial) and specified mandate (required versus recommended) associated with each. The third designation (none specified/local option) encompasses those states in which no multiple curricula are specified, as well as those in which the delineation of multiple curricula and/or the determination as to whether students should be required to select such curricula is left to the discretion of local school systems.

Table 8. Nature of Core Curricula Offerings Among All States With Specified Core Curricula
(N=44)

		Extent of Core					
		Comprehensive (N=13)		Minimal (N=31)		Total (N=44)	
		Number of States	Percentage of States	Number of States	Percentage of States	Number of States	Percentage of States
Core Curricula Specifications							
	I. Content	1	8%	5	16%	6	14%
18	II. Specific courses	0	0%	8	26%	8	18%
	III. Content and specific courses	3	23%	10	32%	13	30%
	IV. Specific courses and course options	2	15%	3	10%	5	11%
	V. Content, specific courses, and course options	6	46%	3	10%	9	20%
	VI. Competencies/standards	1	8%	1	3%	2	5%
	VII. Other	0	0%	1	3%	1	2%

Table 9. Core Curricula Specifications by Content Area Among All States With Core Curricula
(N=44)

Number of States with Indicated Core Specifications													
Content Area		Content		Courses/ Course Options		Content/ Courses/ Options		Competencies/ Standards		Exposure (no credit)		Nothing Specified/ No Info	
		N	%	N	%	N	%	N	%	N	%	N	%
I.	English	10	23%	13	30%	0	0%	2	5%	0	0%	19	43%
II.	Math	3	7%	8	18%	0	0%	1	2%	0	0%	32	73%
III.	Science	15	34%	7	16%	1	2%	1	2%	0	0%	20	45%
IV.	Social Studies	8	18%	34	77%	1	2%	0	0%	0	0%	1	2%
V.	Health & PE	3	7%	26	59%	0	0%	1	2%	0	0%	14	32%
VI.	Computer Literacy	0	0%	4	9%	0	0%	0	0%	10	23%	30	68%
VII.	Fine/Applied Arts	1	2%	9	20%	0	0%	0	0%	0	0%	34	77%
VIII.	Foreign Languages	0	0%	2	5%	0	0%	0	0%	0	0%	42	95%
IX.	Other	3	7%	14	32%	0	0%	0	0%	0	0%	27	61%

Table 10. Cross Tabulation of Core by Multiple Curricula Availability
N=51

Structure of Multiple Curricula

Extent of Core	Defined/ Required (N=16)		Unofficial/ Recommended (N=20)		None Specified/ Local Option (N=15)		Totals (N=51)	
	N	%	N	%	N	%	N	%
I. Minimal (in fewer than 4 areas: N=31)	12	39%	9	29%	10	32%	31	61%
II. Comprehensive (in 4 or more areas: N=13)	3	23%	8	62%	2	15%	13	25%
III. No core or local option (N=7)	1	14%	3	43%	3 ^c	43%	7	13%
Totals	16	31%	20	39%	15	30%	51	100%

20

27

26

As illustrated in Table 10, among the 50 states and the District of Columbia, 31 (61%) have minimal core curricula, 13 (25%) have a comprehensive core, and seven (13%) have no core/local option in the designation of a core. Of the 31 states with minimal core curricula, 12 (39%) have specifically defined, required multiple curricula; nine (29%) have unofficial, recommended multiple curricula; and the other 10 (32%) either have no specified multiple curricula or allow local option in the designation of such curricula. Among the 13 states with comprehensive core curricula, three (23%) offer multiple curricula that are defined and required, eight (62%) have unofficial recommended multiple curricula that are recommended, and the remaining two (15%) are in the none specified/local option category. Of the seven states with no state-delineated core or where local option exists in the designation of the content of that core, one (14%) has multiple curricula that are defined or required, three (43%) have unofficial/recommended curricula, and three (43%) are in the none specified/local option group.

Multiple Curricula Offerings

An indepth examination of the specific types of multiple curricula offered by the 36 respondent states and the District of Columbia in accordance with the definition and mandate associated with each is presented in Table 11. As illustrated, 31 states (86%) offer general studies, standard, or regular curricula. Fourteen such curricula are specifically delineated and are offered in states where curricula placement is mandated upon entry into high school; 17 are unofficially described, and offered in states where curricula placement is only recommended rather than required. Usually such curricula encompass the core offerings, and, in some states, prescribe limited requirements beyond that core. College preparatory/academic curricula are offered by 32 of the 36 states (89%), with 14 such curricula being defined and required, and 18, unofficial and recommended. While these curricula frequently encompass the core, they often also prescribe a number of more stringent academic course requirements in place of, and/or in addition to, that core. Twenty of the 36 states (56%) offer vocational, technical, or business curricula; nine such curricula are defined and required, and 11 are unofficial and recommended. In a number of states the vocational curriculum is offered as a variation of the general curriculum in which vocational courses are substituted for the free electives in the general curriculum.

Seventeen percent, or six states, offer honors or advanced curricula; in four of these states the content of these curricula is defined and required, in the other two they are unofficial and recommended. Honors curricula usually extend beyond college preparatory curricula in terms of the stringency and specificity of the content prescribed. Remedial or basic curricula programs are offered in two states (six percent); in both cases the curricula are unofficial and recommended. These curricula generally focus on meeting the needs of students performing below grade level.

Table 11. Multiple Curricula Offerings Among All States With Such Curricula
N=36

Type of Curriculum	Number & Percentage of States With Various Curricula					
	States With Defined/ Required Curricula (N=16)		States With Unofficial/ Recommended Curricula (N=20)		Total (N=36)	
	N	%	N	%	N	%
General Studies/Standard/Regular	14	88%	17	85%	31	86%
College Prep/Academic	14	88%	18	90%	32	89%
Vocational/Technical/Business	9	56%	11	55%	20	56%
Honors/Advanced	4	25%	2	10%	6	17%
Remedial/Basic Program	0	0%	2	10%	2	6%
Local Option/Varied	2	12%	3	15%	5	14%

Finally, five states (14%) offer such a broad range of curricula at the option of local systems, that these are too varied to be aggregated to provide a statewide view. In two of those states the curricula are defined and required; in the other three, they are unofficial and recommended.

Among the 16 states with defined and required multiple curricula, the curricula most frequently offered include general studies, standard, or regular and college preparatory/academic programs (both are present in 88 percent of the 16 states). These same two types of curricula are also most often found among the 20 states with unofficial and recommended multiple curricula (in 85 and 90 percent, respectively). Overall, these are the most prevalent types of curricula offered among all states with multiple curricula of any type.

High School Diploma Options

One aspect of the national survey addressed the types of high school diplomas currently offered across the country. As illustrated in Table 12, 24 (47%) of the 50 states and the District of Columbia offer only the standard high school diploma with no differentiation as to courses completed or performance exhibited, and no supplement. Multiple diplomas (generally indicative of the completion of a specific curriculum), diplomas with optional certificates, and various combinations of diploma types are offered by substantially fewer of the states (six states, or 12 percent in each case). The optional certificate reported to be available in some of these states generally indicates some type of additional achievement such as the completion of an honors program of study. Standard diplomas with transcripts, or with differentiated endorsements or seals are offered by four states each (8%).

Summary

Among the 50 states and the District of Columbia, 44 (86%) prescribe some type of core curriculum as part of their high school graduation requirements. Multiple curricula are offered in 32 of the 45 states (71%) with both state and local authority for setting graduation requirements. Of the six states with total state or total local standard-setting authority, five (83%) offer such curricula.

Defined multiple curricula are found in 15 (47%) of the 32 states with combined standard-setting responsibility that offer multiple curricula. In the other 17 states (53%), such curricula are unofficially defined, and thus less structured in terms of prescribed content. In 10 of the 15 states (67%) with defined multiple curricula, students are generally required to select one curriculum upon entry into high school, but considerable movement among curricula is allowed in all cases. The primary factor in student placement into specified curricula is student interest or aspiration.

Table 12. Types of High School Diplomas Currently Offered
N=51

	Number of States	Percentage of States
I. One standard diploma; no differentiation; no supplements	24	47%
II. One standard diploma; accompanying transcript	4	8%
III. One standard diploma; differentiated endorsements/ seals	4	8%
IV. Multiple diplomas in accordance with multiple curricula	6	12%
V. Diploma with optional certificate available	6	12%
VI. Combinations of the above	6	12%
VII. Don't know, strictly local option	1	2%

Among the 44 states (including the District of Columbia) that offer core curricula, 13 (30%) have comprehensive core specifications, while the other 31 (70%) have less extensive core requirements. In both cases the core requirements are generally defined in terms of specific courses, course options, and basic content. A breakdown of core specifications by content area indicates that, in most areas, only the minimal number of credit requirements is specified. However, in both social studies and health/physical education, core specifications generally include specific courses or course options.

A cross-tabulation of core by multiple curricula offerings indicates that, among the 31 states with minimal core curricula, 39 percent have defined, required multiple curricula; 29 percent have unofficial, recommended multiple curricula; and the other 32 percent either have no specified multiple curricula, or allow local option in the designation and offering of such curricula. Of the 13 states with comprehensive core curricula, 23 percent offer defined, required multiple curricula; 62 percent have unofficial, recommended multiple curricula; and the remaining 15 percent fall into the none specified/local option category.

The specific types of multiple curricula most frequently offered across the United States include general studies curricula (also referred to as standard or regular curricula), and college preparatory curricula (often termed academic curricula) by 86 and 89 percent, respectively, of the states and the District of Columbia that offer multiple curricula. Vocational/technical, and in some instances, business curricula are next in relative frequency of availability (in 56 percent of the states offering multiple curricula), followed by honors or advanced curricula (by 17 percent), and remedial or basic curricula (by six percent).

Among the various types of high school diplomas awarded across the country, the standard diploma with no differentiation and no supplements, is the type offered most frequently (by 47 percent of the states). Multiple diplomas, diplomas with optional certificates, and various combinations of diploma types issued at local option are next in relative frequency (granted by 12 percent each). The remaining states issue standard diplomas with either transcripts or differentiated endorsements or seals (eight percent in each instance).

Individual state summaries of core and multiple curricula specifications, as well as key graduation requirements addressed by Evaluation Questions 1 and 2, are presented in Appendices A and B. The category designations indicated in those appendices are consistent with the ones defined in the preceding text.

Research Question 3: What secondary education curriculum models emerge for consideration by educational policy makers in Louisiana?

Introduction

Identification and/or development of the curriculum model or models most suited to meeting the needs of Louisiana's secondary school students is an extremely difficult task, and one that is heavily dependent on the resolution of several key issues that lie at the very heart of the state's educational system. In order to provide structure in the search for the best model(s), a systematic approach based on a "decision table" concept is proposed to ensure that the most relevant questions will be raised and that the most viable alternatives will be explored. Furthermore, it is intended that the sequential ordering of the critical issues to be addressed will facilitate the iterative use of the information produced so as to enhance the efficiency and effectiveness of the overall process.

The content of that decision table is presented below. The questions and potential alternatives listed are by no means exhaustive; they are simply offered as a guide in the curriculum model review. Though they literally represent only the "tip of the iceberg," the questions raised in the table are intended to initiate and sustain the broader review process.

Decision Table:

- Step 1: Identify goals for secondary education in Louisiana. (The basic issue to be considered in this step is whether Louisiana should strive to provide a general education for all, or whether the emphasis should be on individualization and the provision of narrowly focused, specific educational programs for identified segments of the high school population.)
- Step 2: Determine the overall curriculum framework. (The decision to be made here is whether Louisiana should provide a common set of experiences for all high school students, or whether the emphasis should be on individualization, through the provision of differentiated experiences.)
- Step 3: Determine the number of curricula to be offered. (The question to be addressed in this step is whether the provision of one curriculum, as opposed to that of multiple curricula, would be more appropriate in facilitating the attainment of the secondary education goals identified for Louisiana.)
- Step 4: Delineate the nature and specific types of curricula to be designated. (Multiple curricula are generally designated in one of two ways, with some overlapping inherent in those categorizations: by student interests/aspirations, or by student abilities/competencies. Selection of the most appropriate approach for Louisiana is again dependent upon the suitability of that approach toward the attainment of the state's previously identified goals.)
- Step 5: Determine suitable curricula content. (The focus of the final step is on the identification of the specific courses, course content, and/or competencies to be prescribed within each of the curricula selected for implementation in Louisiana. In delineating those specifications, care must be taken to ensure that all students are afforded an equal opportunity to attain the goals identified for secondary education in Louisiana.)

Proposed Models

In response to its initial charge, the Multiple Curriculum Study Committee developed an interim report for presentation to the Elementary/Secondary Education Committee of BESE at its March 1986 meeting. In that report, the Multiple Curriculum Committee stated that Louisiana already has a type of multiple curriculum system in that a wide variety of courses are available to meet the varied needs of students. Additionally, the Committee proposed that a core curriculum encompassing the basic graduation requirements be prescribed for all students, and that two additional curricula, a general studies and an honors curriculum, both inclusive of the core, be offered.

A listing of the components of the core curriculum initially proposed by the Multiple Curriculum Committee for implementation in Louisiana is presented in Table 13. This core consists of nine and one-half prescribed credits in the form of specific courses to be taken by all students. In Louisiana, a total of 23 credits is required for high school graduation. The number and percentage of states, other than Louisiana, that prescribe these, or markedly similar courses within their core curricula, is shown in the table. Caution should be exercised in interpreting these data as they reflect only those states for which general core curricula descriptions could be provided by the state/local education personnel interviewed; in numerous instances, decisions concerning the availability and designation of core curricula are made at the local level. In assessing the relative meaning of these data, it should be emphasized that the majority of the states with core curricula have no specific mandates in most content areas; thus, comparisons in those areas will appear more inconsistent than they perhaps really are.

As shown in Table 13, among the 41 states providing information about their core curricula offerings, 11 (27%) prescribe English courses similar to those in Louisiana's proposed core (English I, II, and III). In mathematics, none of the 41 states require that Algebra I be taken by all students; however, two states, did indicate that some of the components of algebra are incorporated within other required math courses. In science, nine other states (22%) prescribe biology or some variation of life science within their defined core curricula.

The greatest degree of similarity between Louisiana's proposed core and the core offerings of other states occurs in the social studies component. Thirty-six states (88%) require American History within their core, 23 (56%) specify that civics or government be offered, and 12 (29%) indicate that free enterprise or economics are required. One unit in health and physical education is a core requirement in 32 of the 41 states (78%), while 17 (41%) prescribe two units in this area. Computer literacy is prescribed in the core curricula of three states (7%).

Background data for decisions involving other curricula beyond the proposed core offerings are presented in Tables 14-16. A summary of the types of multiple curricula currently being offered across the United States is presented in Table 14. This is followed by a listing of the contents of the two curricula being considered for implementation in Louisiana; the general studies curriculum (Table 15) and the honors curriculum (Table 16). The contents of these two proposed curricula are then compared to those of their counterparts in other states.

The information in Table 14 is a summary of data presented in an earlier table. It is repeated here to reiterate the types of multiple curricula most frequently offered across the country. As shown, among the 36 states offering multiple curricula, 31 (86%) offer general curricula, and 32 (89%) offer college preparatory curricula. Slightly more than half (20 of the 36 states) offer vocational curricula, while 17 percent (six states) have honors programs. Remedial or basic programs are offered in two states (6%). The other five states (14%) offering multiple curricula indicated that such offerings are prescribed at the local level, and thus vary so widely that no general picture could be provided for the state as a whole.

Table 13. States With Core Curricula Specifications Similar
to Those Being Considered for Louisiana
N=41^a

Core Curriculum Being Considered for Louisiana	States Prescribing Similar Courses in Their Core	
	N	%
<u>Content Area</u>		
I. English (4) ^b		
o English I (1 credit)	11	27%
o English II (1 credit)	11	27%
o English III (1 credit)	11	27%
II. Mathematics (3) ^b		
o Algebra I (1 credit)	0	0%
(Algebra I content)	(2)	(5%)
III. Science (3) ^b		
o Biology (1 credit)	9	22%
IV. Social Studies (3) ^b		
o American History (1 credit)	36	88%
o Civics (1/2 credit)	23	56%
o Free Enterprise (1/2 credit)	12	29%
V. Health/Physical Education (2) ^b		
o Health & Physical Education I (1 credit)	32	78%
o Health & Physical Education II (1 credit)	17	41%
VI. Computer Literacy (1/2) ^b	3	7%

^aIncludes only those states for which core curricula were described
in survey.

^bDenotes overall credits required for graduation in each content area.

Table 14. Summary of Current Multiple Curricula Offerings Across the United States
N=36

Type of Curriculum	States Offering	
	N	%
I. General/Standard/Regular	31	86%
II. College Prep/Academic	32	89%
III. Vocational/Technical/Business	20	56%
IV. Honors/Advanced	6	17%
V. Remedial/Basic	2	6%
VI. Local Option/Varied	5	14%

General Studies Curricula Comparison

As illustrated in Table 15, the general studies curriculum being considered for implementation in Louisiana consists of nine and one-half credits of specified courses, six credits of specified options (where choices are available from among a limited list of courses), and seven and one-half credits in the form of free electives, for a total of 23 credits. The relative frequency with which similar curricula components are prescribed across the country is also shown.

Among the 27 states for which information was provided, nine (33%) require English I, II, and III as proposed for Louisiana. Two states (7%) require English IV or Business English. In mathematics, very little agreement was found. Only one other state requires Algebra I as a specific course within their general curricula, while one specifies that certain components of Algebra I be presented within the framework of a broader, survey-type mathematics course. None of the other 25 states specifically requires Algebra II or geometry within its general studies curricula. No comparison was possible concerning the mathematics options being considered for Louisiana since the range of options offered across the states surveyed varied considerably.

In science, six states (22%) have a biology or similar life science requirement within their general curricula. Again the comparison with the options specified for Louisiana could not be made.

Table 15. States With General Studies Curricula Specifications
Similar to Those Being Considered for Louisiana
N=27^a

General Studies Curriculum Being Considered for Louisiana	States Prescribing Similar Courses in Their General Curricula	
<u>Content Area</u>	<u>N</u>	<u>%</u>
I. English (4) ^b		
o English I (1)	9	33%
o English II (1)	9	33%
o English III (1)	9	33%
o English IV/Business English (1)	2	7%
II. Mathematics (3) ^b		
o Algebra I (1)	1	4%
(Algebra I content)	(1)	(4%)
o Algebra II (1)	0	0%
o Geometry (1)	0	0%
o Algebra II/Geometry (1)	0	0%
o One from specified options ^c (1)	-	-
III. Science (3) ^b		
o Biology (1)	6	22%
o Two from specified options ^d (2)	-	-
IV. Social Studies (3) ^b		
o American History (1)	25	93%
o Civics/Government (1/2)	16	59%
o Free Enterprise /Economics (1/2)	10	37%
o One from specified options ^e (1)	5	19%
V. Health & Physical Education (2) ^b		
o Health & PE I/Adaptive PE/ROTC (1)	23	85%
o Health & PE II/Adaptive PE/ROTC (1)	14	52%
VI. Computer Literacy (1/2) ^b	3	11%

^aIncludes only those states for which general curricula were described in the survey.

^bDenotes overall credit requirements in each content area.

^cThe math options include advanced math, calculus, consumer/business math, and introduction to algebra.

^dThe science options include general/physical science, earth science, chemistry, physics, aerospace science, and environmental science.

^eThe social studies options include world history, world geography, and western civilization.

Table 16. States With College Prep Curricula Specifications
Similar to Those Being Considered for Louisiana
N=26^a

Honors/College Prep Curriculum Being Considered for Louisiana		States Prescribing Similar Courses in Their College Prep Curricula	
<u>Content Area</u>		N	%
I.	English (4) ^b		
	o English I (1)	10	38%
	o English II (1)	10	38%
	o English III (1)	10	38%
	o English IV (1)	9	35%
II.	Mathematics (3) ^b		
	o Algebra I (1)	15	58%
	o Algebra II (1)	6	23%
	o Geometry/Advanced Math (1)	9	35%
III.	Science (3) ^b		
	o Biology (1)	10	38%
	o Chemistry (1)	5	19%
	o Physics/Environmental Science (1)	4	15%
IV.	Social Studies (3) ^b		
	o American History (1)	23	88%
	o Civics/Government (1/2)	14	54%
	o Free Enterprise/Economics (1/2)	10	38%
	o World History/World Geography/Western Civilization (1)	10	38%
V.	Health & Physical Education (2) ^b		
	o Health & PE I/Adaptive PE/ROTC (1)	18	69%
	o Health & PE II/Adaptive PE/ROTC (1)	11	42%
VI.	Computer Literacy (1/2) ^b	7	27%
VII.	Fine Arts Survey ^c (1) ^b	9	35%
VIII.	Foreign Language ^d (2) ^b	16	62%

^aIncludes only those states for which college prep curricula were described in the survey.

^bDenotes overall credit requirements in each content area.

^cCould substitute with 2 units in band, orchestra, choir, dance, art, or drama.

^dMust be 2 years in the same foreign language.

Considerably more agreement was found in social studies. Twenty-five states (93%) prescribe American history, 16 (59%) require civics or government, 10 (37%) specify free enterprise or economics, and five (19%) require at least one of the three courses delineated within Louisiana's social studies options.

In health and physical education, 23 of the 27 states (85%) prescribe at least one course, although they vary in assigned credits. Fifty-two percent (14 states) require a second health and physical education course. Computer literacy (for one-half to one credit) is specified within the general studies curricula of three states (11%).

Honors Curricula Comparison

The components of the honors curriculum being considered for Louisiana are shown in Table 16, as is a comparison of these components to those prescribed in the college preparatory curricula offered in other states across the country. The comparison was made to college preparatory rather than to honors curricula in other states because more agreement was found between Louisiana's proposed honors curriculum and other states' college preparatory curricula than between the two sets of honors curricula. As illustrated in Table 16, Louisiana's proposed honors curriculum prescribes fifteen and one-half credits in the form of specific courses, three credits as specified options, and four and one-half credits in the form of free electives, for a total of 23 credits.

When compared to the specific courses prescribed by the 26 states from which college preparatory curricula information was obtained, Louisiana's English requirements are similar to those defined in 10 states (38%) in English I, II, and III, and comparable to nine states (35%) in the mandate for English IV. In mathematics, considerably more similarity was found between Louisiana's honors curriculum and the college preparatory curricula in other states than in the general studies and core curricula comparisons previously described. As proposed in Louisiana, 58 percent of the states (15) from whom information concerning college preparatory curricula was obtained require Algebra I, 23 percent (six states) prescribe Algebra II, and 35 percent (nine states) require either geometry or advanced mathematics within such curricula.

In science, biology is specified by 10 states (38%), chemistry by five (19%), and physics or environmental science by four (15%). The greatest degree of agreement among the curricula is again found in the area of social studies. Twenty-three states (88%) require American History in their college preparatory program, 14 (54%) require civics or government, 10 (38%) mandate free enterprise or economics, and 10 (38%) require at least one course from among world history, world geography, and western civilization.

One unit of health and physical education is prescribed within the college preparatory curricula of 18 states (69%); 11 (42%) require at least a second unit. Twenty-seven percent (seven states) prescribe one-half to one unit in computer literacy, 35 percent (nine states) require some type of fine arts course, and 62 percent (16 states) require at least two years of the same foreign language.

Recommendations

Having worked through the step-by-step sequence of pertinent issues outlined in the decision table, and compared the contents of the curricula proposed for Louisiana with similar curricula offerings in other states, the issue that remains to be addressed is whether the core, general studies, and honors curricula, as currently proposed, are truly the most viable models for Louisiana. Furthermore, would the implementation of these curricula, as presently delineated, meet the full intent implied by the passage of HCR 110, particularly with respect to meeting the needs of noncollege-bound students?

In weighing the viability of the proposed core, general studies, and honors curricula relative to meeting the needs of all Louisiana students, it would appear that these types of curricula are appropriate for meeting most student needs. Such curricula are consistent with those most frequently offered across the country. However, as observed in the previously cited comparisons of their proposed content, it would appear that the core being considered for Louisiana is considerably more comprehensive and more stringent than that offered in most other states. It was observed, for example, that no other state requires that all potential graduates complete an Algebra I course, nor do any other states require the completion of either Algebra II or geometry.

In terms of the actual courses proposed for inclusion under the three curricula headings, it can be observed that these same courses had been offered to students for a considerable period of time preceding the 1985 passage of HCR 110. Though not designated within the categories of core, general studies, and honor curricula in previous years, the question must be raised as to whether the mere grouping of courses under new headings will really provide new alternatives for meeting the needs of all students, particularly those of the noncollege-bound.

It would appear that, in order to remove the curriculum inequities referred to in HCR 110, the full attention of the Multiple Curriculum Committee should be perhaps directed toward the high school graduation requirements themselves, rather than the delineation of curricula based on these requirements. The observed stringency of Louisiana's proposed core and general studies curricula, when compared with their counterparts in other states, in contrast to the relative similarity seen in the honors/college preparatory curricula comparisons, seems to support the contention that Louisiana's high school graduation requirements indeed are designed for college-bound students. Thus, before attempting to reach final

consensus on the contents of a core curriculum based on the high school graduation requirements, it would appear that it is those requirements themselves that should be subjected to reexamination. Only after such a review can the content of the core curriculum be specified, with the delineation of the general studies and honors curricula soon to follow.

In addition to the provision of these three curricula, consideration should also be given to the development of an additional curriculum, perhaps in the form of an applied studies program, that could address a broader, and, as yet, unmet range of individual needs among both the college and noncollege-bound. Such a curriculum could contain various strands that would allow students to pursue such diverse interests as business, marketing, health occupations, communications, personal services, music/dramatic arts, computer science, and engineering, to name a few. The core of this curriculum could be application-oriented, with such courses as applied algebra and applied geometry being prescribed for all. The standards addressed within such courses, however, would be identical to those addressed in the proposed general studies and honors curricula.

In terms of the intent inherent in the passage of HCR 110, it would appear that this total curriculum system (consisting of the core, general studies, honors, and applied studies curricula), represents a truly viable approach for meeting the needs of all high school students in Louisiana. Furthermore, with its national research base, the results of this study should be applicable at the national level as well.

At a time when excellence is being demanded from all, the exploration of avenues for guaranteeing that all will be afforded an equal opportunity to attain those higher expectations is a goal toward which all states should strive. It is hoped that this study has made a contribution toward the realization of that goal.

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APPENDIX A
State and Local Minimum High School Graduation Requirements by Content Area

State	English	Math	Science	Social Studies	H&PE	Computer Literacy ^a	Fine/App Arts	Foreign Lang.	Other	Total Specified	Electives	Total Required
1. Alabama	4	2	2	3	1.5	0	0	0	.5	13	9	22
2. Alaska	4	2	2	3	1	0	0	0	0	12	9	21
3. Arizona	4	2	2	2	0	0	0	0	.5	10.5	9.5	20
4. Arkansas	4	3/2	2/3	3	1	0	.5	0	0	13.5	6.5	20
5. California	3	2	2	3	2	0	1/0	0/1	0	13+	-	13+
6. Colorado	4	2	2	2	2	2/1	0	0	0	13	7	20
7. Connecticut	4	3	2	3	1	0	0	0	1	14	6	20
8. Delaware	4	2	2	3	1.5	0	0	0	.5	13	6	19
9. District of Columbia	4	2	2	2	1.5	0	0	1	1	13.5	7	20.5
10. Florida	4	3	3	3	.5	0	.5	0	1	15	9	24
11. Georgia	4	2	2	3	1	1	0	0	0	13	8	21
12. Hawaii	4	2	2	4	1.5	0	0	0	.5	14	6	20
13. Idaho	5	2	2	2	1.5	0	0	0	2.5	15	6	21
14. Illinois	3	2	1	2	LO ^b	0	1/0	0/1	1/0	9+	7	16
15. Indiana	4	2	2	2	1	0	0	0	0	11	8	19
16. Iowa	3	1	1	2	1	.5	0	0	0	8.5	7.5	16

State	English	Math	Science	Social Studies	H&PE	Computer Literacy ^a	Fine/App Arts	Foreign Lang.	Other	Total Specified	Electives	Total Required
17. Kansas	4	2	2	3	1	0	0	0	0	12	9	21
18. Kentucky	4	3	2	2	1	0	0	0	0	12	8	20
19. Louisiana	4	3	3	3	2	.5	0	0	0	15.5	7.5	23
20. Maine	4	2	2	2.5	1.5	0	1	0	0	13	3	16
21. Maryland	4	3	2	3	1	0	1	0	1	15	5	20
22. Massachusetts ^c	4	2	1.7	2.4	L0	L0	L0	L0	L0	L0	L0	L0
23. Michigan ^c	3.5	1.9	1.8	2.8	1.2	.2	.1	0	0	-	8.9	21.1
24. Minnesota	4	1	1	3	1.5	0	0	0	0	10.5	9.5	20
25. Mississippi	4	2	2	2	L0	L0	L0	L0	L0	10	8	18
26. Missouri	3	2	2	2	1	0	1	0	1	12	10	22
27. Montana	4	2	2	2	1	0	1	0	2	14	2	16
28. Nebraska	L0	L0	L0	L0	L0	L0	L0	L0	L0	L0	L0	20
29. Nevada	3	2	1	2	2.5	0	0	0	0	10.5	9.5	20
30. New Hampshire	4	2	2	2.5	1.25	.5	.5	0	3	15.75	4	19.75
31. New Jersey	4	3	2	3	4	0	1	0	L0	17	5	22
32. New Mexico	4	3	2	3	1	0	0	0	1	14	9	23
33. New York	4	2	2	4	.5	0	1	0	L0	13.5	5	18.5
34. North Carolina	4	2	2	2	1	0	0	0	0	11	9	20

State	English	Math	Science	Social Studies	H&PE	Computer Literacy ^a	Fine/App Arts	Foreign Lang.	Other	Total Specified	Electives	Total Required
35. North Dakota	4	2	2	3	1	0	0	0	0	12	5	17
36. Ohio	3	2	1	2	1	0	0	0	0	9	9	18
37. Oklahoma	4	2	2	2	0	0	0	0	0	10	10	20
38. Oregon	3	2	2	2.5	2	0	1/0	0/1	1.5	14	8	22
39. Pennsylvania	4	3	3	3	1	0	2	0	0	16	5	21
40. Rhode Island	4	2	1	1	0	0	0	0	0	8	8	16
41. South Carolina	4	3	2	3	1	0	0	0	0	13	7	20
42. South Dakota	4	2	2	3	0	.5	.5	0	0	12	8	20
43. Tennessee	4	2	2	1.5	1.5	0	0	0	0	11	9	20
44. Texas	4	3	2	2.5	2	0	0	0	.5	14	7	21
45. Utah	3	2	2	3	2	.5	1.5	0	1	15	9	24
46. Vermont	4	2/3	3/2	3	1.5	0	1	0	0	14.5+	L0	14.5+
47. Virginia	4	2	2	3	2	0	0	0	0	13	7	20
48. Washington	3	2	2	2.5	2	0	0	0	1	12.5	5.5	18
49. West Virginia	4	2	2	3	2	0	1/0	0/1	0	14	7	21
50. Wisconsin	4	2	2	3	2	0	0	0	0	13+	L0	14+
51. Wyoming	L0	L0	L0	L0	L0	L0	L0	L0	L0	L0	L0	18

^a = A number of states require exposure to computer/computer literacy within various content areas.

^b L0 = Local option in the designation of credit requirements in these content areas.

^c Mean credit requirements are reported for these states in which local systems prescribe graduation standards.

APPENDIX B
Individual State Summaries

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
1. Alabama	State & local	State; 11th	22	Yes; Minimal	Recommended: o Standard o Advanced o Vocational	Multiple diplomas ^b
2. Alaska	State & local	None	21	Local option	Local option	Standard
3. Arizona	State & local	None	20	Yes; Minimal	Generally required: o General o College Prep o Vocational	Standard; Transcript
4. Arkansas	State & local	None	20	Yes; Minimal	None specified as such	Standard; Transcript
5. California	State & local	Local; 10th	13 (plus local requirements)	Yes; Minimal	Recommended: Model curriculum standards determine curriculum (1984 report specified: o Lower o Middle o Higher o Advanced)	Standard: Differ- entiated endorsements
6. Colorado	Local	None (only 3 districts have)	20 (average)	Local option	Local option	Standard
7. Connecticut	State & local	None	20	Yes; Minimal	Local option	Standard

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
8. Delaware	State & local	None	19	Yes; Minimal	Generally required: o General o College Prep o Vocational	Standard
9. District of Columbia	State/local	None	20.5	Yes; Comprehensive	Recommended: o General o College Prep o Public/Private Partnership Career Preparation Program o Career Development Center Programs o Ballou Math/Science Program o School Without Walls Program o Banneker Academic Program o Duke Ellington School of the Arts Program	Standard; Optional certificates
10. Florida	State & local	State; 10th	24	Yes; Comprehensive	Recommended: o General o College Prep	Standard
11. Georgia	State & local	State; 10th	21	Yes; Minimal	Generally required: o General o College Prep o Vocational	Standard; Differentiated endorsements
12. Hawaii	State	State; 9th	20	Yes; Minimal	Recommended: o General o College Prep o Vocational/Technical	Multiple diplomas

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
13. Idaho	State & local	None	21	Yes; Minimal	Recommended: o Regular o Honor's o Advanced Placement o Remedial/Basic	Standard
14. Illinois	State & local	State; 12th	16	Yes; Minimal	Local option	Standard
15. Indiana	State & local	None	19	Yes; Minimal	None specified as such	Standard
16. Iowa	State & local	None	16	Yes; Minimal	Local option	Standard; Some locals award multiple diplomas
17. Kansas	State & local	Local; 10th	21	Local option	Generally required: Local option as to types	Various types; Local option
18. Kentucky	State & local	None	20	Yes; Minimal	Generally required: o General o College Prep o Commonwealth Diploma Program	Multiple diplomas
19. Louisiana	State & local	None; 11th planned	23	Yes; Comprehensive	None specified as such	Standard: Differentiated endorsements
20. Maine	State & local	None	16	Yes; Minimal	Generally required: o General o Academic: classical o Academic: scientific o Vocational o Business	Various types; Local option

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
21. Maryland	State & local	State; 9th	20	Yes; Minimal	Generally required: Local option as to types	Standard; Optional certificate
22. Massachusetts	Local	None	Local option	Local option	Recommended: o General o College Prep	Standard
23. Michigan	Local	None	21.1 (average)	Local option	Local option	Local option
24. Minnesota	State & local	None	20	Yes; Minimal	None specified as such	Standard
25. Mississippi	State & local	State; 11th	18	Yes; Minimal	Recommended: o General o College Prep o Vocational	Standard
26. Missouri	State & local	None	22	Local option	Recommended: o General o College Prep	Standard; Optional certificate
27. Montana	State & local	None	16	Yes; Minimal	Recommended: Local option as to types	Standard
28. Nebraska	State & local	None	20	Yes; Minimal	Local option; (most do not)	Standard; Some locals award multiple diplomas
29. Nevada	State & local	State; 9th	20	Yes; Comprehensive	Recommended: o General o College Prep	Standard

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
30. New Hampshire	State & local	None	19.75	Yes; Minimal	Recommended: o General o College Prep o Vocational	Standard; Some locals have differentiated endorsements
31. New Jersey	State & local	State; 9th	22	Yes; Minimal	Local option	Standard
32. New Mexico	State & local	State; Not yet selected	23	Yes; Comprehensive	Recommended: o General o College Prep o Vocational/ Technical	Standard
33. New York	State & local	State; Varying grades	18.5	Yes; Comprehensive	Recommended: o Local Diploma Program o Regents Diploma Program	Multiple diplomas
34. North Carolina	State & local	State; 10th	20	Yes; Minimal	Generally required: o General o College Prep o Vocational o Scholars Program	Standard; Differentiated endorsements
35. North Dakota	State & local	None	17	Yes; Minimal	Local option	Standard
36. Ohio	State & local	None	18	Yes; Minimal	Recommended: o General o College Prep o Vocational	Standard
37. Oklahoma	State & local	None	20	Yes; Comprehensive	Recommended: o State Minimum o College Prep o Vocational	Standard

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
38. Oregon	State & local	None	22	Yes; Comprehensive	Generally required: o General o College Prep o Vocational	Standard; Optional certificate
39. Pennsylvania	State & local	None	21	Yes; Minimal	Generally required: o General o College Prep o Business o Vocational/Technical	Standard
40. Rhode Island	State & local	None	16	Yes; Minimal	Generally required: o Career/General o College Prep o Vocational	Standard
41. South Carolina	State	State; 10th	20	Yes; Minimal	Generally required: o General o College Prep o Vocational	Standard; Optional certificate
42. South Dakota	State & local	None	20	Yes; Minimal	None specified as such	Standard; Transcript available
43. Tennessee	State & local	State; 9th	20	Yes; Minimal	Generally required: o General o Honors: General o Honors: Vocational	Multiple diplomas
44. Texas	State & local	State; 11th	21	Yes; Minimal	Generally required: o Regular o Advanced o Advanced Honors	Standard; Differentiated transcripts

State	Level of Graduation Requirements	Graduation Test/Level First Given	Minimum Graduation Credits ^a	Core Curriculum; Extent	Multiple Curricula Offered	Type(s) of Regular Education Diplomas
45. Utah	State & local	None	24	Yes; Comprehensive	Recommended: o General o College Prep	Standard
46. Vermont	State & local	None	14.5	Yes; Comprehensive	None specified as such	Standard
47. Virginia	State & local	State; 10th	20	Yes; Comprehensive	Generally required: o General o Advanced	Multiple diplomas
48. Washington	State & local	None	18	Yes; Minimal	Recommended: o General o College Prep o Vocational	Standard; Transcript
49. West Virginia	State & local	None	21	Yes; Comprehensive	Recommended: o General o College Prep o Vocational	Standard; Optional certificate
50. Wisconsin	State & local	None	13 (plus local re- quirements)	Yes; Comprehensive	Recommended: Local option as to types	Standard; Some locals have differentiated endorsements
51. Wyoming	State & local	None	18	Local option	Recommended: Local option as to types	Standard

^a Reflects new requirements for states in transition.

^b Generally includes standard diploma.